

## CLAIMS

We claim:

- 5.5 B1
1. A communications system configured for network latency recovery,  
comprising:  
an internet protocol network;  
a calling modem coupled to the internet protocol network, the calling modem  
including a timer, the timer being operable to store a network latency value, the calling  
modem being operable to compare the network latency value to a network latency threshold,  
to transmit a low speed modem connection selection signal if the network latency value is  
greater than the network latency threshold, and to transmit a high speed modem connection  
selection signal if the network latency value is less than the network latency threshold; and  
an answering modem coupled to the internet protocol network, the answering  
modem being operable to receive the low speed modem connection signal and the high speed  
modem connection signal.
  2. The communications system of claim 1, further comprising:  
a calling facsimile terminal coupled to the calling modem; and  
an answering facsimile terminal coupled to the answering modem.
  3. The communications system of claim 1, wherein a calling gateway includes the  
calling modem and an answering gateway includes the answering modem.
  4. The communications system of claim 1, wherein the high speed modem  
connection comprises a V.8 modem connection.

1           5.     The communications system of claim 1, wherein the low speed modem  
2 connection comprises a Group 3 connection.

1           6.     The communications system of claim 1, wherein the high speed modem  
2 connection comprises a V.34 half-duplex connection.

1           7.     A calling modem configured for network latency recovery comprising:  
2                 a timer to store a network latency value;  
3                 a comparison block to compare the network latency value and a network  
4 latency threshold; and  
5                 a modem connection selection block to transmit a low speed modem  
6 connection selection signal if the network latency value is less than the network  
7 latency threshold and to transmit a high speed modem connection signal if the network  
8 latency value is greater than the network latency threshold.

1           8.     The calling modem of claim 7, wherein the high speed modem connection  
2 comprises a V.8 modem connection.

1           9.     The calling modem of claim 7, wherein the low speed modem connection  
2 comprises a Group 3 connection.

1           10.    The calling modem of claim 7, wherein the high speed modem connection  
2 comprises a V.34 half-duplex connection.

1 11. A method of handling network latency, comprising the steps of:  
2 storing a network latency value;  
3 comparing the network latency value to a network latency threshold;  
4 transmitting a low speed modem connection signal if the network latency value  
5 is less than the network latency threshold; and  
6 transmitting a high speed modem connection selection signal if the network  
7 latency value is less than the network latency threshold.

1 12. The method of claim 11, wherein the high speed modem connection selection  
2 signal selects a V.8 modem connection.

1 13. The method of claim 11, wherein the low speed modem connection selection  
2 signal selects a Group 3 connection.

1 14. The method of claim 11, wherein the high speed modem connection selection  
2 signal selects a V.34 half-duplex connection.

1 15. A method of handling network latency, comprising the steps of:  
2 operating a high speed modem connection;  
3 measuring network latency;  
4 comparing the network latency to a network latency threshold;  
5 continuing operation of the high speed modem connection if the network  
6 latency is less than the network latency threshold; and  
7 terminating the high speed modem connection if the network latency is greater  
8 than the network latency threshold.

1 16. The method of claim 15, further comprising the step of:  
2 establishing a low speed modem connection if the network latency is greater  
3 than the network latency threshold.

1 17. The method of claim 16, further comprising the step of:  
2 providing a low speed modem selection signal if the network latency is greater  
3 than the network latency threshold to indicate to perform the establishing a low speed  
4 modem connection step.

1 18. The method of claim 16, wherein the low speed modem connection comprises  
2 a Group 3 connection.

1 19. The method of claim 15, wherein the high speed modem connection comprises  
2 a V.8 modem connection.

1 20. The method of claim 15, further comprising the step of:  
2 providing a high speed modem selection signal to indicate to perform the  
3 continuing operation step if the network latency is less than the network latency  
4 threshold.

1 21. The method of claim 15, wherein the high speed modem connection comprises  
2 a V.34 half-duplex connection.